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WHAT IS CLAIMED IS:

1. A drag cup motor, comprising:
a motor core holder;
motor windings disposed around the motor core holder;
a drag cup surrounding and rotatable about the motor core holder; and
a coil mounted around the motor core holder and in communication with a source of current, wherein the coil is in close enough proximity to the drag cup such that the coil can sense the temperature of the drag cup through fluctuations in electrical activity across the coil.
2. The drag cup motor of claim 1, wherein the electrical activity comprises voltage.
3. The drag cup motor of claim 1, wherein the electrical activity comprises current flow.
4. The drag cup motor of claim 1, wherein the drag cup is cylindrical and has an interior portion.
5. The drag cup motor of claim 4, wherein the coil is located within the interior portion of the drag cup.

6. The drag cup motor of claim 1, wherein the coil is wound on a removable coil holder.

7. The drag cup motor of claim 1, wherein the coil comprises copper wire.

8. A drag cup motor in a rheometer, comprising:

a motor core holder;

motor windings disposed around the motor core holder;

a drag cup surrounding and rotatable about the motor core holder; and

a coil wound around a coil former that is mounted on the motor core holder, the coil being in communication with a source of current, wherein the coil is in close enough proximity to the drag cup such that the coil can sense the temperature of the drag cup through fluctuations in electrical activity across the coil.

9. The drag cup motor of claim 8, wherein the electrical activity comprises voltage.

10. The drag cup motor of claim 8, wherein the electrical activity comprises current flow.

11. The drag cup motor of claim 8, wherein the drag cup is cylindrical and has an interior portion.

12. The drag cup motor of claim 11, wherein the coil is located within the interior portion of the drag cup.

13. The drag cup motor of claim 8, wherein the coil is wound on a removable coil holder.

14. A device for sensing the temperature of a drag cup in a motor of a rheometer, the device comprising:

means for sensing temperature, wherein the means for sensing temperature is in contact with a source of current; and

a drag cup located within a motor of a rheometer and in close enough proximity to the means for sensing temperature such that the means for sensing temperature senses the temperature of the drag cup through fluctuations in electrical activity.

15. The device of claim 14, wherein the electrical activity comprises voltage.

16. The device of claim 14, wherein the electrical activity comprises current flow.

17. The device of claim 14, wherein the drag cup is cylindrical and has an interior portion.

18. The device of claim 17, wherein the means for sensing temperature is located within the interior portion of the drag cup.

19. The device of claim 14, wherein the means for sensing temperature is removable.

20. The device of claim 14, wherein the means for sensing temperature is located at an end portion of the drag cup.

21. The device of claim 14, wherein the means for sensing temperature is monitored for changes in voltage.

22. A method of adjusting winding current in a drag cup motor to compensate for changes in torque due to changes in drag cup temperature, the method comprising:
operating the drag cup motor;
supplying current to a coil that is wound adjacent an internal periphery of the drag cup;

determining changes in torque due to changes in temperature of the drag cup by sensing fluctuations in voltage across the coil caused by changes in temperature of the drag cup; and
adjusting winding current to compensate for the changes in torque.

23. The method of claim 22, wherein the drag cup is cylindrical and has an interior portion.

24. The method of claim 22, wherein the coil is wound on a coil former.

25. The method of claim 22, wherein the coil is positioned toward one end of the drag cup.

26. The method of claim 22, wherein the coil comprises copper wire.